

**REMARKS/ARGUMENTS**

The Japanese Applicants acknowledge the prior final office action and by this amendment and these remarks have addressed the issues raised by the Examiner. The Applicants also note with gratitude the allowability of claims 4-7 and 12-13. The Applicants note that claim 14 is also pending and believe that it was intended to be included in the allowable subject matter.

Claim 4 has now been placed in independent form based on claim 1, and claims 4-7 and 12-14 remain dependent from claim 4. Said claims are now clearly in condition for allowance.

Claims 2-3, 8-11 and 15-17 were canceled in response to a restriction requirement. It is believed that it is now appropriate to reinstate claims 8-11 and 15, since they all depend directly or indirectly on allowed claim 4. These formerly withdrawn and canceled claims are now listed as new claims 25-29, all ultimately dependent upon claim 4, as allowed.

Claim 1 has presently been amended to clarify aspects of the claimed invention, and new claims 18-24 copied from unamended claims 4-7 and 12-14 have been added as dependent on claim 1. If claim 1 as now amended is now found to be allowable, it would be also appropriate to reinstate dependent claims 2, 3, 8-11, 15 and 16 as dependent upon claim 1.

Claims 17 remains an unexamined independent claim.

Referring now to the substance of the last office action, and in particular to Section 8, claim 1 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Zah, U.S. Patent No. 6,434,175. The Applicants respectfully traverse the rejection in view of further clarifying amendments to claim 1 and the following remarks based on the Applicant's analysis of the cited reference.

According, to column 1, lines 7-9, the Zah invention relates to different subject matter than herein claims, namely, to lasers in general and in particular to a distributed Bragg reflector (DBR) laser for use as a transmitter in optical communications.

With due respect, and in contrast to Zah, the Applicants wish to point out that the present invention as set forth in amended claim 1 recites an optical module arranged in an optical transmission path, and particularly recites an optical amplifying unit configured with a

semiconductor wherein the optical amplifying unit amplifies in high gain light input from the optical transmission path, and an optical element configured with a semiconductor, wherein the optical element includes an optical modulator, disposed in series with and behind the optical amplifying unit and propagates the light amplified by the optical amplifying unit to the optical transmission path, and is operative to produce gain sufficiently high that insertion loss of the optical module is completely compensated, wherein the optical modulator is a directional coupler modulator.

Notwithstanding the retrospective selective a-la-carte citation of isolated and evidently redundant passages from the Zah reference, closer inspection will show that these claimed features are not taught nor suggested in the claimed combination in the claimed device by the Zah reference, which is to a DBR phased array laser having a prior art but undescribed semiconductor optical amplifier. The semiconductor optical amplifier (SOA 210) cited therein is asserted to be a known device. However, there is no useable description of an SOA therein. The claimed feature of full compensation for insertion loss is not taught, either expressly or--as the Examiner asserts--impliedly: Col. 2 lines 11-24 is not a reference to full loss compensation associated with an SOA, whether or not optional. The deductive conclusion associated with that citation simply does not follow, except by overt and impermissible hindsight reconstruction based on the present disclosure. And, finally, the directional coupler modulator type of optical modulator is nowhere to be found. It is therefore submitted that the present claimed invention is patentable over Zah.

The Applicants thank the Examiner for making further references of record, and they have been noted.

**CONCLUSION**

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested.

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PATENT

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at (650) 326-2400.

Respectfully submitted,

  
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